

## Basic of Civil Engineering (3110004) MCQ

- 1 **Stones are obtained from rocks that are made up of:**  
(A) Ores  
(B) Minerals  
(C) Chemical compounds  
(D) Crystals  
Ans. B
- 2 **Which one of the following is not a classification of stones?**  
(A) Physical Classification  
(B) Mineralogical Classification  
(C) Chemical Classification  
(D) Practical Classification  
Ans. B
- 3 **The hot molten material occurring naturally below the surface of the Earth is called:**  
(A) Lava  
(B) Slag  
(C) Magma  
(D) Tuff  
Ans. C
- 4 **At what depth and rate is a hypabyssal rock formed?**  
(A) Slow cooling of magma at considerable depth  
(B) Quick cooling of magma at a shallow depth  
(C) Rapid cooling of magma at Earth's surface  
(D) Rapid cooling of magma at a shallow depth  
Ans. B
- 5 **What is a sedimentary deposit?**  
(A) Weathered product remains at site  
(B) Weathered product carried away in solution  
(C) Weathered product gets carried away agents  
(D) Insoluble weathered product is carried away in suspension  
Ans. D
- 6 **Which of the following is not a metamorphic change?**  
(A) Calcite to schist  
(B) Limestone to marble  
(C) Shale to slate  
(D) Granite to gneisses  
Ans. A

7 Which of the following rocks are hard and durable?

- (A) Argillaceous rocks
- (B) Siliceous rocks
- (C) Calcareous rocks
- (D) Carbonaceous rocks

Ans. B

8 Foliated structure is very common in case of:

- (A) Sedimentary rocks
- (B) Plutonic rocks
- (C) Igneous rocks
- (D) Metamorphic rocks

Ans. D

9 Granite is a type of:

- (A) Plutonic rock
- (B) Metamorphic rock
- (C) Hypabyssal rock
- (D) Volcanic rock

Ans. A

10 Which of the following is a good fire-resistant stone?

- (A) Clay
- (B) Granite
- (C) Quartz
- (D) Limestone

Ans. A

11 What is sand composed of?

- (A) Silica
- (B) Silicon
- (C) Silicon oxide
- (D) Quartz

Ans. A

12 Which of the following sand type is excellent for use in mortar and concrete work?

- (A) Sea sand
- (B) Clayey sand
- (C) Pit sand
- (D) River sand

Ans. C

13 Which IS code gives the grading of sand?

- (A) IS 456
- (B) IS 383
- (C) IS 2368
- (D) IS 1542

Ans. B

14 What type of grains constitutes river sand?

- (A) Angular
- (B) Flaky
- (C) Irregular
- (D) Rounded

Ans. D

15 How many classifications are there for sand based on the grain size distribution?

- (A) 3
- (B) 2
- (C) 5
- (D) 4

Ans. A

16 Fine sand is generally used for which of the following works?

- (A) Masonry
- (B) Concrete structures
- (C) Plastering
- (D) Grinding and polishing

Ans. C

17 How is M-sand produced?

- (A) Crushing bricks
- (B) Quarrying
- (C) Reusing the debris of demolished building
- (D) Crushing granite stones

Ans. D

18 By which of the following ways is lime obtained?

- (A) Naturally
- (B) Quarrying
- (C) Burning limestone
- (D) Crushing limestone

Ans. C

19 Which of the following pairs is matched properly?

- (A) Class A – Concrete work
- (B) Class B – Mortar
- (C) Class C – Masonry work
- (D) Class D – White washing

Ans. B

20 Which of the following is a property of Fat Lime?

- (A) Shakes very slowly
- (B) Contains clay
- (C) High degree of plasticity
- (D) Poor binding property

Ans. C

21 Lime obtained from calcination of Pure Limestone is called:

- (A) Quick Lime
- (B) Pure Lime
- (C) Lean Lime
- (D) Rich Lime

Ans. A

22 Which of the following slakes after few minutes?

- (A) Moderately Hydraulic Lime
- (B) Eminently Hydraulic Lime
- (C) Perfectly Hydraulic Lime
- (D) Feebly Hydraulic Lime

Ans. D

23 Which of the following types of Lime does not exist?

- (A) Dolomitic Lime
- (B) Roman Lime
- (C) Semi-Hydraulic Lime
- (D) Selentic Lime

Ans. B

24 Why is natural cement used very limitedly?

- (A) Brown in Colour
- (B) Standard consistency is not met with
- (C) Sets too quickly
- (D) Particle size is too fine

Ans. C

25 Who invented Portland cement and in which year?

- (A) William Aspdin, 1824
- (B) William Aspdin, 1840s
- (C) Joseph Aspdin, 1840s
- (D) Joseph Aspdin, 1824

Ans. B

26 What is the average particle size of cement?

- (A) 15 microns
- (B) 45 microns
- (C) 75 microns
- (D) 100 microns

Ans. A

27 What is the meaning of soundness of cement?

- (A) Ability to flow when mixed
- (B) Ability to make ringing noise when struck
- (C) Ability to form strong and sound structure
- (D) Ability to retain volume after setting.

Ans. D

28 Time elapsed from the instance of adding water until paste ceases to behave as fluid is called:

- (A) Initial setting time
- (B) Final setting time
- (C) Intermediate setting time
- (D) Absolute setting time

Ans. A

29 Which of the below mentioned is not a result of field test performed on cement?

- (A) There should not be any lumps
- (B) It should feel cold when you put your hand in bag of cement
- (C) The colour should be blackish grey
- (D) It should not be gritty when rubbed with finger

Ans. C

30 Which equipment is used to test the setting time of cement?

- (A) Core cutter
- (B) Vibrator
- (C) Universal testing machine (UTM)
- (D) Vicat apparatus

Ans. D

31 What is the initial setting time of cement?

- (A) 1 hour
- (B) 30 minutes
- (C) 15 minutes
- (D) 30 hours

Ans. B

32 Use of coarser cement particles leads to:

- (A) Low durability
- (B) Higher strength
- (C) Low consistency
- (D) Higher soundness

Ans. A

33 Green cement is:

- (A) Green coloured cement
- (B) Cement mixed with plant products
- (C) Cement mixed with recycled materials
- (D) Cement mixed with green algae

Ans. C

34 What is the depth the needle in Vicat apparatus should penetrate into the cement paste in consistency test?

- (A) 33-35 cm from bottom of the mould
- (B) 33-35 mm from top of the mould
- (C) 33-35 cm from top of the mould



- (D) 33-35 mm from bottom of the mould  
Ans. B
- 35 What is the most dominant constituent of cement?  
(A) Silica  
(B) Lime  
(C) Magnesia  
(D) Alumina  
Ans. B
- 36 Deficiency of lime in cement leads to:  
(A) Unsound cement  
(B) Disintegration of cement  
(C) Quick setting of cement  
(D) Expansion of cement  
Ans. C
- 37 What effect does calcium sulphate have on cement?  
(A) Retards setting action  
(B) Acts as flux  
(C) Imparts colour  
(D) Reduces strength  
Ans. A
- 38 Which of the following adds a quick-setting property to cement?  
(A) Magnesium oxide  
(B) Silicon dioxide  
(C) Iron oxide  
(D) Aluminium oxide  
Ans. D
- 39 Which of the following imparts greenish grey colour to cement?  
(A) Calcium silicate  
(B) Calcium aluminate  
(C) Calcium aluminate ferrite  
(D) Calcium carbonate  
Ans. C
- 40 Excess of Alkali in cement results in:  
(A) Dry cement paste  
(B) Efflorescence  
(C) Less plasticity  
(D) Unsound cement  
Ans. B
- 41 What function does iron oxide perform in cement?  
(A) Increases strength  
(B) Makes cement sound  
(C) Increases setting time

(D) Acts as flux

Ans. D

42 What is the abbreviation of PPC?

(A) Perfect Portland Cement

(B) Portland Produced Cement

(C) Portland Pozzolana Cement

(D) Productive Portland Cement

Ans. C

43 Which of the following is not an advantage of rapid hardening cement?

(A) Faster construction

(B) Short curing period

(C) Light in weight

(D) Higher final setting time

Ans. D

44 How many types of cement are there based on the ability to set in presence of water?

(A) 2

(B) 3

(C) 4

(D) 5

Ans. A

45 What property does air-entraining cement provide?

(A) Workability

(B) Soundness

(C) Fineness

(D) Strength

Ans. A

46 How many constituents are there in the brick earth?

(A) 5

(B) 4

(C) 6

(D) 8

Ans. A

47 Which one of the below is the most important ingredient in the brick earth?

(A) Alumina

(B) Lime

(C) Silica

(D) Magnesia

Ans. C

48 In what form should lime be present in the brick earth?

(A) Paste

(B) Lump

(C) Clinker

(D) Powder

Ans. D

49 Excess of oxides of iron makes the brick:

(A) Red in colour

(B) Black in colour

(C) Dark blue in colour

(D) Yellow in colour

Ans. C

50 What happens to raw bricks if an excess of alumina is present?

(A) Becomes hard

(B) Becomes brittle

(C) Decay

(D) Shrinkage

Ans. D

51 What is the harmful effect of presents of alkali in brick earth on bricks?

(A) Discolourises bricks

(B) Efflorescence

(C) Porous bricks

(D) Flaking

Ans. B

52 Why do bricks become brittle when excess silica is present?

(A) Pores are created

(B) Flaking occurs

(C) Thermal stability is lost

(D) Cohesion is lost

Ans. D

53 Which of the following leads to the formation of small pores in brick?

(A) Iron pyrites

(B) Pebbles

(C) Organic matter

(D) Alkalis

Ans. C

54 The presence of which of the below renders clay totally unsuitable for brick manufacture?

(A) Kallar

(B) Kankar

(C) Hay

(D) Lime

Ans. A

55 Unburnt bricks are also called:

(A) Dry bricks

(B) Clayey bricks

(C) Kucha bricks



(D) Clamp bricks

Ans. C

56 Burnt bricks can be further classified into how many types?

(A) 2

(B) 4

(C) 3

(D) 5

Ans. B

57 First class bricks are used for:

(A) Brick ballast in R.C.C

(B) Boundary walls

(C) Low height walls

(D) Pavements

Ans. D

58 The minimum crushing strength of third class brick is:

(A) 3.5 N/mm<sup>2</sup>

(B) 7 N/mm<sup>2</sup>

(C) 10 N/mm<sup>2</sup>

(D) 20 N/mm<sup>2</sup>

Ans. A

59 Which of the following is not a feature of second class bricks?

(A) Have small irregularities

(B) Water absorption is between 20-25%

(C) Rectangular in shape

(D) Free from cracks

Ans. B

60 Trees are generally classified, based on the mode of growth into:

(A) 2

(B) 4

(C) 6

(D) 3

Ans. A

61 What is the life time of a moderately durable timber?

(A) 10-20 years

(B) 1-5 years

(C) 10-15 years

(D) 5-10 years

Ans. D

62 Which of the following is an example of soft wood?

(A) Sal

(B) Oak

(C) Deodar

(D) Mahogany

Ans. C

63 Which IS Code gives a classification of commercial timbers and their zonal distribution?

(A) IS 620

(B) IS 399

(C) IS 401

(D) IS 190

Ans. B

64 Hard wood is strong in tension and weak in compression.

(A) True

(B) False

(C)

(D)

Ans. B

65 Exogenous trees are further divided into:

(A) 3

(B) 4

(C) 2

(D) 5

Ans. C

66 Which of the below is a property of soft wood?

(A) Medullary rays are less distinct

(B) Annual rings are less distinct

(C) Dark in colour

(D) Close grained structure

Ans. A

67 Fine Aggregates should pass through which IS sieve?

(A) 2.35mm

(B) 45 $\mu$

(C) 4.75mm

(D) 75 $\mu$

Ans. C

68 How many types of fine aggregates are there based on source?

(A) 3

(B) 2

(C) 4

(D) 6

Ans. A

69 What is the fineness modulus value of a fine sand?

(A) <2.2

(B) 2.2-2.6

(C) <1

(D) 1-2

Ans. B

70 M-Sand has \_\_\_\_\_ type of particle shape.

(A) Flaky

(B) Round

(C) Angular

(D) Cubical

Ans. D

71 The specific gravity for sand is:

(A) 2.6

(B) 2.65

(C) 2.8

(D) 2.75

Ans. A

72 Graded aggregate contains particles of size:

(A) Single grade

(B) 4.75mm

(C) Multi grade

(D) <80mm

Ans. C

73 Flaky particles have:

(A) Small thickness

(B) Elongated sides

(C) Sharp edges

(D) Rounded edges

Ans. A

74 Which size coarse aggregate is ideal for use in a concrete mix?

(A) Smaller

(B) 4.75-10mm

(C) Larger

(D) 10-20mm

Ans. C

75 In crushing test on coarse aggregates, what size particle is taken as a sample?

(A) Passing 12.5mm IS sieve

(B) Retained on 10mm IS sieve

(C) Passing 10mm and retained on 4.75mm IS sieve

(D) Passing 12.5mm and retained on 10mm IS sieve

Ans. D

76 Gravel is a type of:

(A) Rounded aggregate

(B) Angular aggregate

(C) Flaky aggregate

**(D) Irregular aggregate**

**Ans. D**

**77 A building can be mainly divided into how many components?**

**(A) 2**

**(B) 3**

**(C) 6**

**(D) 8**

**Ans. B**

**78 D.P.C (Damp Proof Course) is mainly laid on:**

**(A) Footing**

**(B) Floor**

**(C) Foundation**

**(D) Plinth**

**Ans. D**

**79 Floor in a building**

**(A) Separates levels**

**(B) Is laid below plinth**

**(C) Contains R.C.C.**

**(D) Has thickness of 10cm**

**Ans. A**

**80 Which of the below is constructed above doors, windows?**

**(A) Joist**

**(B) Purlin**

**(C) Lintel**

**(D) Arch**

**Ans. C**

**81 What is the level below window called?**

**(A) Pane level**

**(B) Lintel level**

**(C) Sill level**

**(D) Plinth level**

**Ans. C**

**82 Wall is mainly of how many types?**

**(A) 3**

**(B) 2**

**(C) 5**

**(D) 6**

**Ans. B**

**83 \_\_\_\_\_ wall is used to resist lateral forces like severe wind.**

**(A) Knee wall**

**(B) Cavity wall**

**(C) Infill wall**

- (D) Shear wall  
Ans. D
- 84 The outer projection on the tread of a stair is:  
(A) Going  
(B) Outcrop  
(C) Bulge  
(D) Nosing  
Ans. D
- 85 Mortar comes from the Latin word:  
(A) Mortare  
(B) Mortarum  
(C) Mortaer  
(D) Mortarium  
Ans. D
- 86 The first used Mortar was:  
(A) Lime mortar  
(B) Mud mortar  
(C) Cement mortar  
(D) Organic mortar  
Ans. B
- 87 Polymer Cement Mortar (PCM) is used primarily for:  
(A) Repairing concrete structure  
(B) Stone masonry  
(C) Tile masonry  
(D) Brick masonry  
Ans. A
- 88 The guidelines for preparation for mortar is given in:  
(A) IS 4455  
(B) IS 2250-1981  
(C) IS 3350-1981  
(D) IS 5567  
Ans. B
- 89 Which of the below is added to make mortar fire proof?  
(A) Gypsum  
(B) Asbestos cement  
(C) Powdered glass  
(D) Aluminous cement  
Ans. D
- 90 The setting speed of mortar can be increased using:  
(A) Lime  
(B) Sulphur  
(C) Pozzolana



(D) Gypsum

Ans. A

91 Which of the below mortar can settle under water?

(A) Hydraulic

(B) Pozzolana

(C) Lime

(D) Flyash

Ans. B

92 Which stone is used for buildings situated in industrial towns?

(A) Marble slab

(B) Compact sandstone

(C) Gneiss

(D) Slate

Ans. B

93 Rubble masonry is sub-divided into:

(A) 4

(B) 2

(C) 6

(D) 10

Ans. C

94 Which of the below joints is used for masonry in arches?

(A) Butt

(B) Table

(C) Rebated

(D) Dowel

Ans. C

95 Which ratio of cement mortar is used for stone masonry?

(A) 1:6

(B) 1:3

(C) 1:8

(D) 1:4

Ans. B

96 Ashlar masonry uses:

(A) Dimension stones

(B) Polygonal stones

(C) Quarry dressed stones

(D) Square stones

Ans. A

97 \_\_\_\_\_ masonry occupies an intermediate position between rubble masonry and ashlar masonry.

(A) Rubble block in a course

(B) Ashlar rubble in course

(C) Ashlar block in a course

(D) Rubble ashlar in course

Ans. C

98 Great skill and skilled labour are required for laying:

(A) Coursed rubble masonry

(B) Ashlar fine masonry

(C) Ashlar chamfered masonry

(D) Dry rubble masonry

Ans. D

99 How many types of brick masonry are possible?

(A) 4

(B) 2

(C) 5

(D) 6

Ans. A

101 In which bond brick is laid with its length in the direction of a wall?

(A) Header

(B) Flemish

(C) Stretcher

(D) English

Ans. C

102 Which of the below should be avoided in brick masonry?

(A) Horizontal joints

(B) Queen closer

(C) Brick bat

(D) Vertical joints

Ans. D

103 \_\_\_\_\_ bond is better in appearance than English bond.

(A) Flemish

(B) Double Flemish

(C) Single Flemish

(D) Poly Flemish

Ans. B

104 Flemish bond is expensive than English bond.

(A) True

(B) False

(C)

(D)

Ans. B

105 In Herringbone bond, bricks are placed at \_\_\_\_\_ angle from \_\_\_\_\_ line in both directions.

(A) 60°, central

(B) 60°, vertical

(C) 45°, central

(D) 45°, vertical

Ans. C

106 The portion of bricks cut across the width in half is called:

(A) Half split

(B) Half closer

(C) Half bed

(D) Half bat

Ans. D

107 What should be placed at the beginning of every header course in English bond to avoid vertical joint?

(A) Queen closer

(B) Half bat

(C) Three fourth bat

(D) Three fourth bat

Ans. A

108 The bricks used for corners of walls of a structure are called:

(A) Spalls

(B) Quoins

(C) Hearting

(D) Side

Ans. B

109 Which bond comprises of one course of a header to three or five courses of stretchers?

(A) Dutch bond

(B) Zig-zag bond

(C) English garden-wall bond

(D) Facing bond

Ans. C

110 How many components are mainly used to prepare concrete?

(A) 5

(B) 3

(C) 2

(D) 4

Ans. D

111 Which of the below is the most common alternative to cement in concrete?

(A) Slag

(B) Fly ash

(C) Asphalt

(D) Lime

Ans. C

112 Which of the below is the most common alternative to cement in concrete?

- (A) Slag
- (B) Fly ash
- (C) Asphalt
- (D) Lime

Ans. C

113 What is the ideal water-cement ratio to be used while hand mixing?

- (A) 0.4-0.5
- (B) 0.5-0.6
- (C) 0.6-1
- (D) 1.6-2

Ans. B

114 Retarders are used for:

- (A) Construction of high rise building
- (B) Repair works
- (C) Cold weather conditions
- (D) Grouting deep oil wells

Ans. D

115 \_\_\_\_\_ is added to make white concrete.

- (A) Fly ash
- (B) Metakaolin
- (C) Rice husk
- (D) Pigments

Ans. B

116 As water cement ratio increases, \_\_\_\_\_ also increases.

- (A) Compressive strength
- (B) Tensile strength
- (C) Bleeding
- (D) Workability

Ans. D

117 Which of the below is an example of plasticizer?

- (A) Hydroxylated carboxylic acid
- (B) Fluoro-silicate
- (C) Gypsum
- (D) Surkhi

Ans. A

118 Which component of concrete gives it desired compressive strength?

- (A) Water
- (B) Cement
- (C) Aggregates
- (D) Admixture

Ans. C

119 What is the ratio of the component in grade M20 concrete?

- (A) 1:3:6
- (B) 1:1.5:3
- (C) 1:1:2
- (D) 1:2:4

Ans. B

120 The most common type of door is:

- (A) Double leaf door
- (B) Louvred door
- (C) Single leaf door
- (D) Battened door

Ans. C

121 A casement window hung horizontally is called:

- (A) Hopper
- (B) Awning
- (C) Pivot
- (D) Transom

Ans. B

122 Light, a term used in windows, is:

- (A) Area between outer parts of a window
- (B) Glazed part of the window
- (C) Area between inner parts of a window
- (D) Opening of the window allowing light

Ans. A

123 If a door swings towards the person opening it, it is called:

- (A) Left handed
- (B) Reverse
- (C) Normal
- (D) Right handed

Ans. B

124 Which of the below material of window has life span of 50 years?

- (A) PVC
- (B) Steel
- (C) UPVC
- (D) Aluminum

Ans. C

125 \_\_\_\_\_ door swings both ways.

- (A) Mead
- (B) Dutch
- (C) Garden
- (D) French

Ans. A

126 The difference between magnetic north and geographic north is:



- (A) Dip
- (B) Strike
- (C) Declination
- (D) Bearing

Ans. C

127 In the triangulation method, the whole area is divided into:

- (A) Scale triangles
- (B) Triangles
- (C) Obtuse triangles
- (D) Well-conditioned triangles

Ans. D

128 A stone that marks boundary is called:

- (A) Merestone
- (B) Milestone
- (C) Metestone
- (D) Limestone

Ans. A

129 Which of the below is not a classification of surveying?

- (A) Marine
- (B) Basement
- (C) Astronomical
- (D) Land

Ans. B

130 EDM stands for:

- (A) Errorless Distance Measurement
- (B) Electronic Direct Measurement
- (C) Electronic Distance Measurement
- (D) Errorless Direct Measurement

Ans. C

131 Plane and geodetic surveying are classifications of surveying based on:

- (A) Methodology
- (B) Earth's curvature
- (C) Object of survey
- (D) Instrument

Ans. B

132 \_\_\_\_\_ errors are small unavoidable fluctuation.

- (A) Random
- (B) Gross
- (C) Systematic
- (D) Mistake

Ans. A

133 Which of the below is not a means of linear surveying methods?

- (A) Theodolite
- (B) EDM
- (C) Tape
- (D) Chain

Ans. A

134 An offset is a \_\_\_\_\_ distance of an object measured from the survey line.

- (A) Lateral
- (B) Horizontal
- (C) Normal
- (D) Inclined

Ans. A

135 Which of the below is not an instrument used to set right angles?

- (A) Cross staff
- (B) Site square
- (C) Optical staff
- (D) Prism square

Ans. C

136 How many types of chains are used in chain surveying?

- (A) 4
- (B) 5
- (C) 6
- (D) 8

Ans. B

137 Gunter's chain consists of \_\_\_\_\_ links.

- (A) 500
- (B) 50
- (C) 1000
- (D) 100

Ans. D

138 The process of a location of intermediate points on a survey line is:

- (A) Aligning
- (B) Extending
- (C) Ranging
- (D) Offsetting

Ans. C

139 The biggest of the survey line is called:

- (A) First line
- (B) Base line
- (C) Tie line
- (D) Main survey line

Ans. B

140 Chain surveying uses the principle of:

- (A) Traversing
- (B) Chaining
- (C) Ranging
- (D) Triangulation

Ans. D

141 In how many ways can ranging be carried out?

- (A) 2
- (B) 3
- (C) 4
- (D) 5

Ans. A

142 The book in which chain measurements are entered is called:

- (A) Field book
- (B) Record book
- (C) Study book
- (D) Chain book

Ans. A

143 How many types of cross staff are available?

- (A) 2
- (B) 5
- (C) 3
- (D) 4

Ans. C

144 Survey stations may be marked on the ground using a:

- (A) Pole
- (B) Rod
- (C) Pointer
- (D) Peg

Ans. D

145 The direction of a line relative to a given meridian is called:

- (A) Bearing
- (B) Declination
- (C) Angle
- (D) Dip

Ans. A

146 How many types of a compass are used in surveying?

- (A) 4
- (B) 2
- (C) 3
- (D) 5

Ans. B

147 \_\_\_\_\_ bearing is measured in the direction of survey.

- (A) Primary
- (B) First
- (C) Fore
- (D) Front

Ans. C

148 In a reduced bearing system, bearing is measured from:

- (A) Nearest one (North or South)
- (B) South
- (C) West
- (D) North

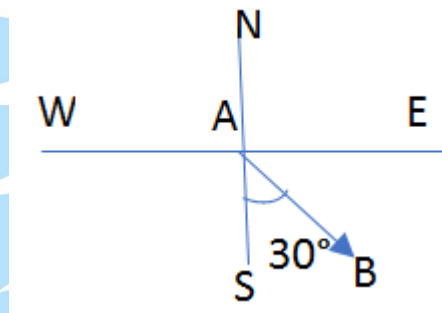
Ans. A

149 Prismatic Compass is based on the reduced bearing system.

- (A) True
- (B) False
- (C)
- (D)

Ans. B

150 The bearing of line AB as shown below is represented in reduced bearing as:



- (A) N150°
- (B) E60°S
- (C) S30°
- (D) S30°E

Ans. D

151 How many meridians are used in surveying?

- (A) 6
- (B) 8
- (C) 3
- (D) 5

Ans. C

152 \_\_\_\_\_ is a term used that prevents the needle from pointing to the magnetic North in a given locality.

- (A) Local attraction
- (B) Declination

- (C) Deviation
- (D) Local distraction

Ans. A

153 \_\_\_\_\_ line is the line drawn through points of the same declination.

- (A) Polygonic
- (B) Isogonic
- (C) Syngonic
- (D) Agonic

Ans. B

154 Which of the below is not a temporary adjustment of the prismatic compass?

- (A) Centring
- (B) Levelling
- (C) Focussing prism
- (D) Adjusting sight vane

Ans. D

155 How many types of variations in declination are there?

- (A) 4
- (B) 5
- (C) 2
- (D) 3

Ans. A

156 A levelling staff is used to establish:

- (A) Horizontal line of sight
- (B) Vertical line of sight
- (C) Location of points
- (D) Distance of points

Ans. A

157 Dumpy level was originally designed by:

- (A) Fennel
- (B) Heerbrugg
- (C) Stanley
- (D) Gravatt

Ans. D

158 Which of the below is used to make a line of sight horizontally in a level?

- (A) Foot screws
- (B) Levelling head
- (C) Telescope
- (D) Tangent screws

Ans. A

159 A digital level reads a:

- (A) Target staff
- (B) Barcoded staff



- (C) Digital staff
- (D) Telescopic staff

Ans. B

160 Which of the below cannot be used to measure vertical heights?

- (A) Self level
- (B) Aneroid barometer
- (C) Transit
- (D) Hypsometer

Ans. C

161 How many types of self-reading staff are available?

- (A) 5
- (B) 2
- (C) 3
- (D) 4

Ans. C

162 Which of the below is not common in all levelling equipment?

- (A) Telescope
- (B) Level vials
- (C) Level rods
- (D) Tilting screws

Ans. D

163 Trigonometric levelling is also called:

- (A) Indirect levelling
- (B) Differential levelling
- (C) Fly levelling
- (D) Profile levelling

Ans. A

164 In \_\_\_\_\_ levelling, the first and last point are at a far distance.

- (A) Fly
- (B) Differential
- (C) Profile
- (D) Reciprocal

Ans. B

165 Stadia levelling is a modified form of:

- (A) Fly levelling
- (B) Differential levelling
- (C) Simple levelling
- (D) Trigonometric levelling

Ans. D

166 Reciprocal levelling is used when,

- (A) Flat terrain
- (B) Obstacles are there

- (C) BM not visible
- (D) Highway construction

Ans. B

167 In a hilly terrain, staff reading is more at:

- (A) Lower point
- (B) Higher point
- (C) First point
- (D) Last point

Ans. A

168 Which is the arithmetic check for the height of instrument method?

- (A)  $\sum FS + \sum BS = \text{First RL} + \text{Last RL}@$
- (B)  $\sum BS - \sum FS = \text{Last RL} - \text{First RL}@$
- (C)  $\sum FS + \sum BS = \text{Last RL} + \text{First RL}@$
- (D)  $\sum BS - \sum FS = \text{First RL} - \text{Last RL}@$

Ans. B

169 Which instrument is used in trigonometric levelling?

- (A) Wye level
- (B) Compass
- (C) Theodolite
- (D) Dumpy level

Ans. C

170 In levelling, error due to earth's curvature is to be corrected using:

- (A)  $Cc=0.0673D^2$
- (B)  $Cc=0.0112D^2$
- (C)  $Cc=0.0136D^2$
- (D)  $Cc=0.0785D^2$

Ans. D

171 Contours can be found in a \_\_\_\_\_ map.

- (A) Political
- (B) Topographical
- (C) Physical
- (D) Thematic

Ans. B

172 Contour Maps are not mandatory in civil engineering projects like road works, dams, canals, etc.

- (A) True
- (B) False
- (C)
- (D)

Ans. B

173 How many methods of contouring are present?

- (A) 5

(B) 3

(C) 2

(D) 4

Ans. C

174 Indirect methods uses how many methods?

(A) 3

(B) 4

(C) 2

(D) 6

Ans. A

175 The commonly used squares in the method of a square is:

(A) 10m x 10m to 5m x 5m

(B) 10m x 10m to 15m x 15m

(C) 5m x 5m to 20m x 20m

(D) 5m x 5m to 10m x 15m

Ans. C

176 Which of the below methods is used for interpolating contour points between 2 points?

(A) Arithmetic calculation

(B) Using measuring tapes

(C) Taking pictures of area

(D) Using a theodolite

Ans. A

177 The contour interval is the same for all purposes.

(A) True

(B) False

(C)

(D)

Ans. B

178 The curves used for drawing lines between points in a contour line is:

(A) Radial curve

(B) French curve

(C) C-curve

(D) Inverted curve

Ans. B

179 Which shaped lines indicate the presence of a ridge?

(A) V-shaped

(B) U-shaped

(C) L-shaped

(D) S-shaped

Ans. B

180 The line which separates the catchment basin from the rest of the area is:

(A) Ridge line

- (B) Dam line
- (C) Catchment line
- (D) Watershed line

Ans. D

181 Which of the below is used up to a range of 100km?

- (A) Infrared
- (B) Microwave
- (C) Visible range
- (D) Ultra-violet

Ans. B

182 A total station is a combination of:

- (A) EDM and Theodolite
- (B) Compass and EDM
- (C) Electronic Theodolite and EDM
- (D) EDM and electronic Compass

Ans. C

183 Which unit in total station processes data collected?

- (A) Data collector
- (B) EDM
- (C) Storage system
- (D) Microprocessor

Ans. D

184 Which is the latest development in a total station?

- (A) High resolution
- (B) High accuracy
- (C) Robotic
- (D) Automatic

Ans. C

185 Which of the below is not an application of total station?

- (A) Crime scene investigation
- (B) Furniture manufacture
- (C) Mining
- (D) Archaeology

Ans. B

186 What is the range of medium range EDM?

- (A) <5kms
- (B) 15-25kms
- (C) 5-25kms
- (D) >25kms

Ans. C

187 Each point entered in a total station is stored in:

- (A) Hard discs

(B) Electronic books

(C) Data storage

(D) Chip

Ans. B

188 Which of the below is a commercial element in highway construction?

(A) Traffic

(B) Installation technique

(C) Environmental aspects

(D) Material

Ans. C

189 \_\_\_\_\_ can provide a 3-5 dB reduction in tyre-pavement noise emissions.

(A) Asphalt

(B) Bituminous

(C) Rubberised asphalt

(D) Concrete

Ans. C

190 In a building, to provide ultimate comfort to occupants \_\_\_\_\_ can be used.

(A) AC

(B) HVAC

(C) Ventilators

(D) HAC

Ans. B

191 Which IS codes gives details about elevators?

(A) IS 27752

(B) IS 38665

(C) IS 14665

(D) IS 27855

Ans. C

192 The slope of a ramp should not be more than:

(A) 1 in 35

(B) 1 in 20

(C) 1 in 15

(D) 1 in 10

Ans. C

193 How many types of ventilation are there?

(A) 3

(B) 4

(C) 2

(D) 5

Ans. A

194 A fire detector cannot detect:

(A) Radiation



- (B) Heat
- (C) Light
- (D) Smoke

Ans. C

195 When exposed to fire, concrete has very little strength left after:

- (A) 500°C
- (B) 300°C
- (C) 200°C
- (D) 600°C

Ans. D

196 Desiccants are chemicals that:

- (A) Remove humidity
- (B) Add humidity
- (C) Add moisture
- (D) Remove moisture

Ans. D

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